

ABSTRACT

Title: Hydraulic System for Wheeled Loader

An hydraulic system for a wheeled loader comprising a loader arm assembly which carries a working implement and which is connected to the body and which is movable between raised and lowered positions by means of a hydraulic ram means and in which a hydraulic accumulator is connected to the hydraulic ram means wherein the loader arm assembly is connected at, or adjacent to, the rear end thereof to the body at, or adjacent to, the rear end thereof so that the loader arm assembly extends forwardly whereby, in a lowered position of the loader arm assembly, the working implement is disposed in front of the body wherein each chamber of the hydraulic ram means is connected to a selection valve means adapted to feed fluid under pressure to one chamber of the ram means and to receive fluid at a lower pressure from the other chamber of the ram means in order to raise the loader arm assembly or to feed fluid under pressure to said other chamber of the ram means and receive fluid at a lower pressure from said one chamber of the ram means to lower the loader arm assembly, first and second control valves each of which is movable between a first position in which passage of hydraulic fluid therethrough is prevented in one or both directions respectively to a second position in which passage of hydraulic fluid therethrough is permitted, said first control valve means being connected between said first chamber and said accumulator and said second valve means being connected between said second chamber and a low pressure region and there being a check valve connected between the first chamber and the selection valve means such that the check valve is normally closed to prevent fluid under pressure passing from said first chamber to the selection valve means and having hydraulic fluid responsive means to open said check valve and there being means to connect said hydraulic fluid pressure means to said second chamber so as to open the check valve.